Publishers’ and journals’ instructions to authors on use of generative artificial intelligence in academic and scientific publishing: bibliometric analysis

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Abstract

Abstract Objectives To determine the extent and content of academic publishers’ and scientific journals’ guidance for authors on the use of generative artificial intelligence (GAI). Design Cross sectional, bibliometric study. Setting Websites of academic publishers and scientific journals, screened on 19-20 May 2023, with the search updated on 8-9 October 2023. Participants Top 100 largest academic publishers and top 100 highly ranked scientific journals, regardless of subject, language, or country of origin. Publishers were identified by the total number of journals in their portfolio, and journals were identified through the Scimago journal rank using the Hirsch index (H index) as an indicator of journal productivity and impact. Main outcome measures The primary outcomes were the content of GAI guidelines listed on the websites of the top 100 academic publishers and scientific journals, and the consistency of guidance between the publishers and their affiliated journals. Results Among the top 100 largest publishers, 24% provided guidance on the use of GAI, of which 15 (63%) were among the top 25 publishers. Among the top 100 highly ranked journals, 87% provided guidance on GAI. Of the publishers and journals with guidelines, the inclusion of GAI as an author was prohibited in 96% and 98%, respectively. Only one journal (1%) explicitly prohibited the use of GAI in the generation of a manuscript, and two (8%) publishers and 19 (22%) journals indicated that their guidelines exclusively applied to the writing process. When disclosing the use of GAI, 75% of publishers and 43% of journals included specific disclosure criteria. Where to disclose the use of GAI varied, including in the methods or acknowledgments, in the cover letter, or in a new section. Variability was also found in how to access GAI guidelines shared between journals and publishers. GAI guidelines in 12 journals directly conflicted with those developed by the publishers. The guidelines developed by top medical journals were broadly similar to those of academic journals. Conclusions Guidelines by some top publishers and journals on the use of GAI by authors are lacking. Among those that provided guidelines, the allowable uses of GAI and how it should be disclosed varied substantially, with this heterogeneity persisting in some instances among affiliated publishers and journals. Lack of standardization places a burden on authors and could limit the effectiveness of the regulations. As GAI continues to grow in popularity, standardized guidelines to protect the integrity of scientific output are needed.